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## SOCIAL SIGNIFICANCE OF HIRED LABOR SMALL HOLDINGS AND SMALL FARMS.

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The demand for labor in urban centers has of late made serious inroads in the available supply of unmarried farm hands and has stimulated, to some extent, the building of houses for married hired men. Numerous land settlement schemes have advocated the building of a house with an acre or two of land for the rural hired man. This may be an admirable scheme to increase population in new regions where the labor supply is scarce. In the older and more settled regions such a policy would probably be very unfortunate.

The general custom in the northern half of the United States is that the hired man shall not marry until he has started farming and this article presupposes that future tenants will be selected from the present hired men. There are at least two causes for this. First, the lack of housing facilities on the farm, and second, an effective incentive for accumulation of capital on the part of some hired men. These circumstances are a distinct and positive check on rural population.

The first proposition is relatively simple. It has been the custom in the northern part of United States for the unmarried laborers to lodge and board with their employers. The operating owner is thus confronted with an economic problem. If he brings the laborer into his own home his household expenses will be somewhat greater, and the duties of his wife will be increased. If he does not make the hired man a part of his family then he must build a second house and secure the services of a married man. Assuming that he can get either kind of help he desires, the operator must then weigh the expense of repairs and insurance, depreciation and interest on the house to be built and a slightly higher nominal wage against the increased household expenses and the inconvenience due to the presence of the hired man.

In general, the farm produces a considerable portion of the daily food consumed, and the presence of one more mouth adds but little expense. Further, the operator is at very little extra expense to

house the laborer when the hired man becomes a part of the family. Past experience indicates that it is more economical to bring the hired man into the family circle. New barns, fertilizers, new machinery, education of the children seem, in the light of past experience, to be the more important considerations. The hired man's house seems to be the last addition to the farm. When the operator has sufficient capital to invest in the form of tenant houses the operator usually moves to town and rents his farm. Assuming that there are married and unmarried men to be employed, the tendency has been to employ the latter. This economic tendency on the part of the operator prevents the laborer from marrying during the hired-man stage, and is a positive check on population.

The second restraint on rural population in this region is an effective desire on the part of some young laborers for the accumulation of capital. As has been brought out in the previous discussion, it is cheaper for the operator to take the hired men into the family than to build more farm structures to house hired labor. This is particularly the case where building materials are scarce and relatively high priced.

From the point of view of the laborer, is a married or unmarried state more desirable from a purely economic standpoint? If a young hired man marries, his productivity as a laborer is not increased while his expenses of living have increased. He supports two instead of one, and there is no added revenue. Usually the operator is willing to pay the married laborer a larger wage than the unmarried man. The difference, however, does not compensate for the cost of his own board, not to mention that of his wife. Consequently, although the nominal wage of the laborer is greater, the real wage is less. In rural communities to-day we find many men who have married and started a family before they passed from the hired-man stage to the tenant stage and are still hired men. Seldom does a young man marry and start farming and then revert to the hired-man state. Ostensibly, then, where there exists an effective desire for accumulation of capital on the part of the laborer, in order to start farming, there is a positive check on population. As soon as the farm hand has sufficient means to start farming as a renter, a wife is an economic necessity. Rarely do men start farming without a helpmate. In a few instances, a mother or sister may take the place of a wife. The previously mentioned restraints on population now no longer exist, and the Malthusian law seems to operate with remarkable exactness. The rapid increase in population is due to (1) persistence of the procreative

force, (2) an abundant supply of cheap food, and (3) the income to be secured from the children as they advance into the productive age. The fact that the presence of the first tends to an increase in the number of children beyond the limits of subsistence need not be discussed here. The second is that the abundance of cheap foods relieves the check on population due to the high cost of living in urban centers. The products of the garden stock and farm crops in some cases have no value and in other cases have a value far below the wholesale or retail prices of such commodities in our urban centers. In other words, the cost of rearing rural children is relatively low.

The third factor, the importance of the income in the form of unpaid labor, may need elucidation. If the young operator owns no land, but possesses a little capital in the form of machinery, stock or supplies, his income from capital is relatively unimportant when contrasted with other sources of income. There are only two sources of income left, wages and entrepreneurial profits. Since agriculture is an individualistic and a conservative occupation, the entrepreneurial profits are low. In the case of share tenants, the first stage through which most young men pass as farmers, the landlord secures a portion of this entrepreneurial profit. The net result is that the source of living and accumulation must largely come from labor. Consequently, the tenant resorts to many methods to decrease the expense of hired labor and increase the income from his own or family labor. It takes little originality to perceive that a combination of the presence of a strong procreative force, an abundant supply of cheap food and the economic necessity of unpaid labor tend to produce a condition under which rural population increases very rapidly.

The author admits the presence of checks which tend to vitiate this apparently crass doctrine. However, when a young man starts farming and is heavily in debt he is confronted with an economic proposition. If he increases his family he can reduce the indebtedness somewhat faster and accumulate capital more rapidly and later leave the children a respectable inheritance, a deferred payment for services previously rendered. The other alternative is that the operator rear a smaller family, which results in a slower reduction of the farmer's indebtedness, which, in turn, of course retards the accumulation of capital and leaves a smaller inheritance to his offspring. It is readily conceivable that the inheritance per child in both cases will be approximately equal. Assuming such a condition to exist, which method of procedure will the young man follow? The former will tend to prevail as it will give the operator greater economic advantage dur-

ing his life. Although this appears to be a harsh discourse, it has its bright side. The hired man who becomes a farm operator usually does not start farming until he is relatively mature, late marriages usually meaning smaller families.

The landlord, in choosing tenants, always looks for the most industrious and conscientious hired man who has accumulated sufficient capital to start farming. That is the young man whom the landlord feels will be able to produce for him the largest return. This selection is, consequently, a very efficient check upon population and eliminates the unfit, leaving the control of the rural population in the hands of those most capable of caring for it.

The question may then be raised concerning the effect of size of farm on population. Table I presents the relation between size of farm and the number of children under sixteen years of age on farms in northern Illinois. The correlation coefficients ( $r$ ) exhibited in Table I do not permit the assertion of a significant correlation between the two phenomena in question. The size of farm does not seem to be a factor affecting the number of children under sixteen years of age.

Table II presents the relation of size of farm and the number of children over sixteen years of age. The correlation coefficients ( $r$ ) presented in Table II indicate the presence of positive significant correlation for the factors in question for all groups of operators. In the case of operating owners, the correlation coefficient is six times the probable error, part owners, five; cash renters, nine; share tenants, four, and all tenants, ten.

The one factor, the number of children on the farm under sixteen years of age, is not influenced by the size of farms; the second factor, the number of children on the farm over sixteen years of age, varies with the size of farms.

The stimulation of very small holdings or the utilization of married farm labor to replace the dwindling unmarried farm labor has great social significance. Married farm hands rarely become farm operators as it is almost impossible to accumulate sufficient capital. Again, the utilization of unmarried hired labor on the farm is not only a positive check on population as it prevents indiscriminate marriage in a place with cheap living conditions but slowly and surely is a very effective selector of population as the landlords looking for tenants to operate their farms choose those who are industrious and have capital. Very small holdings in the older districts are in practically the

same economic state so far as progress is concerned as are the married hired men.

The data in Table I indicate that size of farm bears no relation to the number of children under sixteen years of age. The same would probably hold true for small holdings of two or three acres and for the married hired man. Large farms tend to hold the children on the farm after they have become more productive. Small farms, small holdings and a married hired labor state forms a breeding ground with cheap food for the production of urban labor. The last two, small holdings and married farm labor, do not in any way produce a selective population.

TABLE I.—Correlation between size of farm and the number of children per farm under 16 years of age and the means and variables for the number of children under 16 years of age for farms operated by owners, part owners, cash renters, and share renters. 680 farms.

Groups of Operators.	Means and Variables for the Number of Children Under 16 Years of Age.			
	r.	M.	$\delta$ .	C.
Owners.....	.009 $\pm$ .042	1.879 $\pm$ .078	1.941 $\pm$ .057	103.299 $\pm$ 5.368
Part owners.....	.137 $\pm$ .103	1.732 $\pm$ .182	1.500 $\pm$ .112	86.605 $\pm$ 10.199
Cash rent.....	.065 $\pm$ .044	2.343 $\pm$ .104	1.923 $\pm$ .060	82.074 $\pm$ 3.954
Share rent.....	-.131 $\pm$ .055	2.214 $\pm$ .124	1.883 $\pm$ .073	85.050 $\pm$ 5.269
All tenure.....	.027 $\pm$ .026	2.099 $\pm$ .054	1.914 $\pm$ .035	91.186 $\pm$ 2.723

TABLE II.—Correlation between size of farm and the number in the family over 16 years of age and the means and variables for the number in the family over 16 years of age for the owners, part owners, cash renters, and share renters. 680 farms.

Groups of Operators.	Means and Variables for Number in Family Over 16.			
	r.	M.	$\delta$ .	C.
Owners.....	.257 $\pm$ .039	3.227 $\pm$ .134	1.467 $\pm$ .043	45.460 $\pm$ 1.586
Part owners.....	.457 $\pm$ .083	3.195 $\pm$ .337	1.469 $\pm$ .109	45.978 $\pm$ 4.085
Cash rent.....	.377 $\pm$ .038	2.548 $\pm$ .113	1.065 $\pm$ .033	41.797 $\pm$ 1.526
Share rent.....	.220 $\pm$ .053	2.828 $\pm$ .158	1.288 $\pm$ .051	45.545 $\pm$ 2.146
All tenure.....	.246 $\pm$ .024	2.910 $\pm$ .075	1.339 $\pm$ .024	46.013 $\pm$ 1.005

1.  $r$  = Correlation coefficient and represents the interrelation of certain phenomena that tend to move with certain continuity. If certain characters increase in proportion to one another, then the rate is perfect and is indicated by 1. If one character increases and the other exhibits a proportional decrease the correlation is — 1. If there is no correlation present the coefficient is 0.

2.  $M$  = Mean, which is the expression of the value of a character and approximates the average.

3.  $\delta$  = Standard Deviation, which is a measure of variability. The standard deviation does not measure the amount that some particular departure deviates

from any fixed standard. It is an excellent measure of variability of all the data in question from the mean.

4.  $C$  = Coefficient of Variability. Standard deviation is a measure variability applicable and comparable to the data in question. The coefficient of variability is an abstract measure of variability which affords an accurate method of comparing the variability of unrelated phenomena. Illustrations of such coefficients are as follows:

Phenomena.	$C$
Corn length of ears .....	$7.8 \pm 0.2$
Corn weight of ears .....	$33.2 \pm 0.4$
Feeding Steers .....	$45.3 \pm ?$
Size Farms .....	$42.8 \pm 1.3$
Farm Labor Income .....	$230.6 \pm 7.3$
Bacteria Counts .....	$297.1 \pm ?$
Length of noses .....	$9.5 \pm ?$
Number of Children under 16 .....	$91.2 \pm 2.7$

Farm Labor incomes and bacteria counts are much more variable than length of human noses or weight of ears of corn. High variability does not vitiate conclusions that may be drawn from carefully prepared data.

5.  $\pm$ . Some numbers represents the probable error, which gives us a barometer of the accuracy of the data in question. If the measure in question is more than three times the probable error considerable reliability can be placed in the data. For instance in Table I the correlation between size of farm and number of children under 16 years of age for all tenure is .027 and the probable error is .026. As the coefficient .027 approximates zero, the probable error is almost as large as the correlation coefficient  $\pm$  the correlation ( $.027 \pm .026$ ) has no significance and indicates no tendency for any relation between size of farm and age of children under 16 years.

In Table II the correlation between size of farm and children over 16 years of age for all tenure is  $0.246 \pm 0.024$ . The correlation coefficient 0.246 is positive; that is as size of farms increases there are more children over 16 years of age per farm. The fact that the coefficient (.246) is ten times the probable error (.024) indicates beyond a doubt that the correlation is significant.